

FIRST ANNUAL REPORT

OF THE

DIRECTORS

OF THE

PENNSYLVANIA RAIL-ROAD COMPANY,

TO THE

STOCKHOLDERS.

OCTOBER 30, 1847.

PHILADELPHIA :

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1847.



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At a meeting of the Stockholders of the Pennsylvania Rail-road Company, held at the Office of the Company, on Monday, December 6, 1847,

JAMES FASSITT, Esq., was appointed Chairman, and

A. G. RALSTON, Esq., Secretary.

The meeting being called to order by the Chairman, Mr. Merrick, President of the Company, presented the Report of the Directors, when the following resolutions were moved and seconded, and unanimously adopted:

Resolved, That the action of the Board of Directors in the important trust committed to them under the charter of the Company, meets with the cordial approval of the Stockholders, and that they be and are hereby authorized to apply to the Legislature of the Commonwealth, for such alterations and amendments, in the Act of Incorporation, on the surveys of the proposed route of the Rail-road, and the general interests of the Company may appear to them to be necessary or proper.

Resolved, That the Directors be requested to cause the Annual Report, and such other information as they may deem expedient, to be published in pamphlet form for distribution among the Stockholders, and in such newspapers throughout the State and elsewhere, as will insure a proper direction on the public mind towards the important undertaking we are now prosecuting.

JAMES FASSITT, Chairman.

A. G. RALSTON, Secretary.

After the adjournment of the Stockholders, an election for thirteen Directors of the Company for the ensuing year was held, when the following gentlemen were unanimously elected

DIRECTORS OF THE PENNSYLVANIA RAIL-ROAD COMPANY.

SAMUEL V. MERRICK,
THOMAS P. COPE,
ROBERT TOLAND,
DAVID S. BROWN,
JAMES MAGEE,
RICHARD D. WOOD,

STEPHEN COLWELL,
GEORGE W. CARPENTER,
CHRISTIAN E. SPANGLER,
THOMAS T. LEA,
WILLIAM C. PATTERSON,
JOHN A. WRIGHT,

JESSE GODLEY.

TO THE STOCKHOLDERS

OF THE

PENNSYLVANIA RAIL-ROAD.

GENTLEMEN,—

The period has arrived, when under the provisions of the nineteenth section of the Charter of the Company, the Board are required to present to you an account of their proceedings before surrendering to you the trust which has been confided to them.

Upon entering the duties assigned to them, in the prosecution of a work of such magnitude, in which their fellow citizens hold a deep stake, and in which the future prosperity of the City is largely interested, the Board felt their responsibility, well knowing that a false step at the commencement would damp the ardor of its friends and jeopardize its final success.

Earnest consideration was therefore given to the most effective organization of the Engineer Corps, upon which success in a great measure depended, and the Board determined to place that department under an efficient head, who should control the whole, with two associates, to have charge under his direction of the two divisions of the road respectively.

In the selection of a Chief Engineer, the Board were fortunate in obtaining the services of Mr. John Edgar Thomson, a gentleman of enlarged professional experience and sound judgment, who had obtained a well earned reputation upon the Georgia road, and in whom the Board place great confidence.

The office of Associate, West, was filled by the election of Mr. Edward Miller, a gentleman well known and appreciated in this community, who has occupied several prominent positions in his

profession, with entire credit to himself, and enjoys the merited confidence of all companies who have employed him.

As Associate, East, Mr. Wm. B. Foster, Jr., was appointed, a gentleman who has for years filled important stations, in connection with the State works, and who has proved himself an able and efficient officer.

The experience of the past summer has satisfied the Board that in the organization of this department they have nothing to regret.

The Board at an early day turned their attention to an object, which they deemed it incumbent on them to secure if possible, for which their constituents had manifested great solicitude, and took immediate measures to prevent the Baltimore and Ohio Rail-road Company availing itself of the Law passed by the Legislature of this State, granting to that Company the right of constructing a road from Cumberland to Pittsburgh.

To effect this a subscription to the amount of three millions of dollars, and the payment of one million into the Treasury of the Company, were required by the Act of Assembly, and to have Fifteen Miles of road put under contract for construction at each terminus of the Pennsylvania Rail-road, prior to the thirtieth day of July, 1847. The instalments were therefore called payable on the first days of May and July, and were promptly met by the stockholders. These instalments, with that already paid at the time of subscription, amounted to nine hundred thousand dollars, and the deficiency was met by payments, in anticipation of the fourth instalment, from Stockholders, who came promptly forward to a sufficient extent, some of whom paid up their stock in full.

In the month of July, contracts were made for the construction of the road the required distance, and on the second of August, the Governor issued his proclamation, declaring the law giving to the Baltimore and Ohio Rail-road Company the right of way through Pennsylvania null and void.

The good effect of this measure upon the general interests of the Company has been made strikingly manifest, by putting it in the offset in a state of high credit, and by imparting to it a public confidence which cannot fail to facilitate future subscriptions that may be necessary for the completion of the road.

The policy to be pursued by the Board in the management of this work was plainly indicated.

The law requiring fifteen miles at each end to be put under contract was fulfilled, but at this point so unwise a course stopped.

With this exception, the attention of the Board was directed to the Eastern end, with a view of bringing into profitable use that portion of the road which would soonest make a return to the stockholders.

An examination of the different routes which had been indicated by former surveys, and public opinion, led irresistibly to the conclusion that the Valley of the Juniata was on all accounts to be preferred, presenting greater facilities, easier gradients, and less distance, with the decided advantage of being brought into profitable use at a much earlier period than either of the others.

Accordingly it was determined to adopt and place it under contract as rapidly as it could be prepared by the Engineers. Twenty miles were let in July, which are now rapidly progressing towards completion. Forty miles further to Lewistown will be let to contractors on the twenty-sixth of November, and the Engineers are now actively engaged in locating the line, with a view of placing the remainder of the eastern division to the base of the mountain, under contract early in the Spring. As soon as the Engineers have completed their operations, a report from the Chief Engineer, with an estimate of the cost, will be made and published for the information of the stockholders.

The surveys and location of the Western division cannot be completed until early the ensuing summer, but sufficient information will be obtained from the surveys of this year to enable the Engineers to give an estimate of the cost of the whole road, with considerable accuracy. The line of the road upon the eastern side of the mountain has been finally determined, and proves highly favorable. The whole length of the road from Harrisburg to Robinson's ridge, at the foot of the Allegheny, is one hundred and thirty-five miles, upon which there is no ascending gradient exceeding sixteen feet per mile to Lewistown, and twenty-one feet for the remainder of the distance, nor a descending gradient exceeding ten and a half feet per mile.

From Robinson's ridge, which divides the little Juniata from the Frankstown branch, north of Brush Mountain, the ascent of the Allegheny is commenced, and overcome (with the use of locomotive power) by a gradient of about eighty feet per mile in

thirteen miles, without encountering any extraordinary difficulties. This work will be left for a future period, and in the mean time a junction will be formed with the Allegheny portage by a branch line, six miles in length, from Robinson's ridge to Hollidaysburg, or some point further west. From the summit of the Allegheny to Pittsburgh the line will pass over an uneven country, requiring maximum gradients of fifty feet per mile in both directions. The whole length of the road from Robinson's ridge to Pittsburgh will fall somewhere between one hundred and ten to one hundred and twenty miles.

The general plan determined upon by the Board is to proceed with the Western Section as soon as the Eastern Division is complete, unless means are provided to prosecute both simultaneously, and to bring them into use by connecting with the Allegheny Portage while the Mountain or Middle Division is in the course of construction.

From present prospects, the Board anticipate being enabled to run their cars from Harrisburg to Lewistown before the close of the winter of 1848-49, and the winter following, with the means now at their command, to connect with the Portage at Hollidaysburg, which, with the completion of the Western fifteen miles, will give a continuous rail-road communication between Philadelphia and Pittsburgh, with the exception of fifty-five miles to be traveled by stages; and the Board anticipate at that time a very large proportion of Western travel over the road.

The importance of securing a supply of iron in time early engaged the attention of the Board, and they were desirous of obtaining it from the mines of Pennsylvania. With this view, they offered to contract for a sufficient amount to afford an inducement to erect new iron works for its manufacture.

After some negotiations, they finally closed with the offer of David Reeves for fifteen thousand tons, the amount required for the Eastern Section, at sixty and one half dollars per ton, being about ten dollars per ton less than the market price at that time on the seaboard. The amount required, and prospect of future orders, determined the bid, which was considered a very advantageous operation for both parties. Mr. Reeves has commenced the erection of his works in Lancaster county, and will be prepared to de-

liver iron in the month of June next, being the time it will be required for the track.

Since the period when this enterprise was first undertaken a marked change has manifested itself in the public mind with respect to its feasibility and prospects of profit. At that period the subscription to the stock was considered by many as a patriotic endeavor to retain and extend a trade which legitimately belonged to this city, and which was about to be wrested from her grasp by her enterprising rivals.

A glance at the subscription book attests the existence of this feeling, for out of some twenty-six hundred subscriptions near eighteen hundred are for five shares and under. The books at that time were carried from house to house by the active friends of the road, who solicited even single shares, and the powerful aid of public opinion was brought to bear upon the city authorities to induce a large subscription, lest private enterprise should be inadequate to the task. Of the importance of the work to the true interests of the city and State no one ever entertained a doubt. If any had been entertained, the recent disaster to the State Public Works of Pennsylvania, must have removed it.

In a single night, the whole range of canal along the Juniata was swept by the flood; more than twenty thousand tons of goods in transit left along its banks, to be wagoned East and West at a heavy expense, and the channel of communication between the East and the West interrupted for near two months, leaving the country full of produce, coal and iron, unable to find an outlet to market for the next six months, and materially interrupting the business prospects of the merchants both of Philadelphia and Pittsburgh.

Such an occurrence, which the canal must at all times be subject to, has awakened the attention of the whole country to the necessity of pressing the work forward with the utmost vigor.

As an investment, this work is now viewed in a very different light from what it was a year ago.

Since the road has been seriously undertaken, with an earnest determination to bring it rapidly to a completion, its prospects have been more carefully scrutinized, and every fact which has been developed in the public prints has gone to show that when

in operation it has a field open to it which no other enterprise of the kind presents.

Already the citizens of Ohio are combining their energies to extend our line through the fertile valleys of that State, and form a continuous way from the Atlantic to the Far West. Even from Pittsburgh alone a vast trade must open to it, which has never been taken into account, in the single item of cattle, of which more than fifty thousand are annually driven through Pennsylvania from Ohio, and which can be transported over the road at a large saving to the drover, yielding abundant profit to the company.

That the Pennsylvania Rail-road must yield an immediate profit on the investment is generally admitted by all well informed persons, and we may now look to capital seeking investment, and not to patriotism to furnish it.

The manifest advantages to be derived from an early completion of the whole line call for a recommendation from the Board that immediate steps be taken to raise sufficient capital to render it available in the shortest possible period.

The amount now subscribed exceeds three millions of dollars, which, it is safely calculated, is sufficient to put the road in operation to the base of the Allegheny, and connect it with the State Portage. This portion of the work is now being constructed as rapidly as is consistent with judicious economy.

The Western Section may be considered as a distinct work, and can, without detriment to the interest of the company, be put under contract at the same time as the Eastern, thus effecting a saving of nearly two years in the completion of the whole. A united effort should, therefore, be made both in the East and the West, in order to enable the Board to commence the work as soon as the surveys are complete.

It is fortunate that the unfriendly feelings which divided us from our Western fellow citizens have been allayed, on both sides by time and calm reflection. Both parties now see that their interests are inseparably united, and we have the strongest assurances from prominent persons who were most active in forwarding other interests that they are ready to unite with us, and give their hearty co-operation. Measures are now in progress in Pittsburgh which it is hoped will lead to a large subscription from the citizens and authorities of Allegheny county.

To place the company in a strong position, and unite all interests in its behalf, some legislation will be important, which, it is supposed, will not be difficult of attainment, as many interests which heretofore were adverse will now act in accordance with the wishes of the company.

A careful examination of the law will be made prior to the ensuing session of the Legislature, with a view to such minor changes as will add to its efficiency. The Board now call the attention of the stockholders to two important amendments for their sanction.

One, which will materially affect future subscriptions, is the supplement presented and asked for at the last session, granting to municipal bodies the right to subscribe to the stock of the company; a law which would, under certain restrictions, give the company the right to accept the certificates of loan issued by municipal corporations in payment of instalments for stocks will have a most beneficial effect upon our subscriptions.

The tenth section of the charter of the company provides, that after bona fide contracts shall have been made for the immediate construction of fifteen miles of the road at each end thereof, a sum equal to five per cent. per annum on the capital stock of said company actually paid in shall be estimated and paid to the several holders thereof, on account of the amounts payable by them respectively for stock subscribed, to be charged to the cost of construction.

This clause was doubtless intended by the Legislature to place the original stockholders upon a just footing in point of interest on their capital with those who might subscribe at later periods, who would otherwise participate equally in advantages accruing from the early subscriptions of their more enterprising neighbors. This intention was equitable, and tended to induce early subscription, but does not meet the exigencies of the case.

The consideration of this clause has led to an inquiry into the policy of paying interest upon all subscriptions semi-annually in money, from the day the instalments are required to be paid, with a view not only of inducing subscriptions, but also of placing all stockholders upon equal ground. The objection that may be urged, that the company will pay out as dividends that which it has not earned, will not bear the test of scrutiny.

It is perfectly true that the company has earned no money to divide ; but, whether the interest upon the capital paid in while the road is making is sunk, or appears only on the private books of the shareholders, or whether it is credited on the books of the company on account of future instalments to be paid, or whether it is actually paid out, and new stock subscribed to meet the demand, the effect is the same. For in either case interest is an element in the cost of construction, and must be added to the capital expended. By this latter course the effect produced is, that the capital stock, when the road is finished, represents exactly the cost, principal and interest, and every shareholder, early or late, is placed upon the same footing.

In considering this question, it is well to take warning from experience, and compare the practice in Pennsylvania with that of other States.

The large public works of this State constructed by private means, it is believed, almost without exception, have been undertaken upon inadequate capital. Their projectors have raised sufficient funds by subscription for the commencement, and trusted to loans, at fixed interest, for the completion, hoping to obtain sufficient profit to pay off the debts and give excessive dividends to the shareholder.

The result of this policy has been almost universally a disappointment. The property of the stockholders, has, in many cases, been sacrificed to pay an interest to loan-holders. Money has been raised at usurious interest by the sale of bonds below their par value ; and in cases where the works would have paid a fair remunerating profit if they had been constructed at their fair cash cost, they now labor under an accumulation of debt, which absorbs all the profit of the concern to pay the interest. Hence it is that capitalists in this city are backward in entering into new projects of public improvement, as their confidence in success and early returns is much shaken by the policy which has heretofore been pursued.

The example drawn from the practice here should be avoided, and the Pennsylvania Rail-road carried through upon its legitimate capital without debt, and this can only be accomplished by the payment of a moderate rate of interest to shareholders, during the progress of the work. Parties may not be found to the required

extent who are willing or able to forego their income, while so large a work is in the course of construction, but if an income is regularly paid, any reasonable amount of capital may be obtained for a road which must, when finished, pay a remunerating profit.

It is fortunate that our work is of such a nature that it will not long require the exclusive use of capital to pay the interest, because every section, when finished, will bring in immediate returns in aid of the interest paid. A considerable profit will accrue when the road is in operation to Lewistown, and in another year, when it is connected with the State road at the Allegheny portage, the income will be still further increased in proportion to the cost, and it is doubted, whether the semi-annual payments for interest will ever prove a very serious burthen.

The line of policy now recommended by the Board, is to ask the passage of an amendment to the Charter, requiring the Company to pay semi-annually an interest equal to six per cent. per annum upon all instalments as called for, (a charge of one per cent a month, being now provided upon delinquencies,) which interest is to be charged to cost of construction, and to credit the same account with all earnings until they amount annually to a sum sufficient to pay dividends to that amount.

In recommending the payment of interest, the Board do not propose any new experiment. This plan is sanctioned by the practice of English companies, as well as those of New York and Massachusetts, and has been followed by the most beneficial results.

Although it is understood that no provision exists in the charters granted in these States for the payment of interest, yet for the last six years such payments have been voluntarily made by all companies, under a conviction of the policy and equity of the measure, and it is found that it not only has the advantage of securing prompt payments from the stockholders, but it permits persons of limited means to invest in these stocks, with a certainty of receiving their incomes regularly from the time of such investment.

The ultimate effect has been that all the roads but one in Massachusetts have been built upon their capital stock, only a single company having been obliged to have recourse to loans, to complete their road.

In New York it is understood that the same course obtains, and that the Hudson River Company pay to the shareholders an interest of seven per cent. as the work progresses.

In looking forward to the trade likely to accrue from an extension of the Pennsylvania Road to the West, and in view of meeting the efforts that might be expected to divert that trade, the Board thought it expedient that a committee should visit Ohio during the past summer, in order that they might understand the interests that would probably be brought to bear upon their future prospects. Accordingly they delegated Messrs. J. R. Ingersoll, Ralston, Spangler, and Cresson, as a committee for this purpose. The report of that committee was highly satisfactory, and a correspondence was opened by them with intelligent and enterprising citizens, interested in works of internal improvement in various parts of the State. From the inquiries of the committee, it is understood that an active spirit of enterprise has been awakened in that State, and that the most strenuous exertions are making to reach the Atlantic by railway communication.

The enormous increase of trade consequent upon the demand for provisions and bread-stuffs upon the Atlantic coast for shipment, has satisfied their citizens, that channels of communication, liable to interruption for a large portion of the year, will not meet the demands of commerce, and hence their attention is turned to means of transportation, upon which they can rely with certainty at all seasons.

Two great chains of rail-road are contemplated through the State of Ohio, towards which decided measures have been taken. The first and most forward in its prospects, is that leading from Cincinnati through Columbus, and thence eastward till it touches the Ohio river, at some point where it can connect with a rail-road to the seaboard.

This road connects with the Cincinnati and Sandusky road, which is already in operation as far as Xenia, or Springfield, and passes through Columbus and Newark, to the mouth of Licking river. From this point two routes present themselves, one to Wheeling, through Zanesville, and the other in a north-eastern direction, till it strikes the river about Wellsville. The road for a part of the distance is in the hands of organized companies, who will carry on their work by local means, until they come to the

point of divergence. This road is of too important a character to stop at such a point, as it will bring over it for a large part of the year most of the travel south of Cincinnati. Its movements from the mouth of Licking river must be governed by the probability of reaching the Atlantic in the shortest probable period. The tendency of trade from the country through which this road passes, is from long habit, to Baltimore, a tendency created by the existence of the national road, and if, on arrival there, it shall be seen that the Baltimore and Ohio road is likely to reach the river first, the probability is in favor of the Wheeling route. If on the contrary it shall appear that the Pennsylvania road can first be finished, we may look with confidence to its being the recipient of that great trade.

In taking Columbus as the starting point, the distance estimated to Philadelphia is a few miles less than via Wheeling to Baltimore, and as the mass of travel tends to the north, the distance between Baltimore and Philadelphia is saved to the traveler. It is believed to be a fact, that four-fifths of the through travel over the Baltimore and Ohio road, take the line to Philadelphia without stopping at all in that city.

With such a prize as the Southern Ohio trade in view, the energetic prosecution of the Pennsylvania Road is of the utmost importance, as our success depends upon rapidity of motion. An additional argument is brought home to every stockholder to induce him to assist in placing the company in a position to prosecute the Western section simultaneously with the Eastern.

Still more important to the interest of this road is the Central or "Back-bone" line, as it is aptly termed, through the table lands of Ohio, which has been projected and is in a fair way of prosecution.

This road will traverse almost in a straight line, the rich belt of wheat lands which extends through the whole State, and embraces a fertile and thickly populated region, and crosses every rail-road that can be made from the South to the Lakes. The movements towards the construction of this road have already commenced with spirit, and will be conducted with energy.

The country which it traverses is sufficiently populous and rich to make it, and from the peculiar topography of that region, its cost will be moderate and its profits large. It is difficult to appreciate the extent of trade and travel that it will control. It

commands a vast amount of trade which now finds its way to the lakes, and borders for its whole length, the rich grazing country of the north of Ohio.

From its geographical position, this trade must come to Philadelphia, and may be looked to with confidence, both as a profit to our road and an increase of the trade of the city. Already a portion of it from Wellsville, West, is under contract. Charters exist which will cover a large portion of the ground, and application will be made to the Legislature of Ohio during the ensuing winter, to connect these charters, so as to give the whole line from the Eastern to the Western borders of the State, into the hands of one company, who will at once commence their operations.

In view of the construction of these roads, which are destined at a very early period to throw upon the Pennsylvania Rail-road a trade of great magnitude and value, the Board turned their attention to the connection which must be made between their Western terminus and the Ohio State line, and being satisfied that the true policy of the citizens of Pittsburgh is to unite cordially and with their whole strength in the completion of the road connecting the two cities, they took upon themselves the responsibility of guaranteeing to their fellow citizens of that city that this connection should be made as soon as the requirements of the trade should make it advisable. And they still hope that the same view will be taken by our brethren of the West, and they will yet receive their hearty co-operation.

The Treasurer's report, herewith presented, will exhibit the state of the finances. Balance in hand, \$953,303 86.

It is hoped that, with the new contracts about to be made, they will soon be able to expend these funds with rapidity. No calls will probably be made until the ensuing spring, of which due notice will be given.

The Board have to regret the loss from among their number of an ardent friend of the road, Henry C. Corbit, Esq., who was compelled to resign in the month of May from ill health. The vacancy was filled by the election of Jesse Godley, Esq., on the seventeenth of that month.

In surrendering this important trust to their constituents, the Board cannot refrain from mutual congratulations upon the aus-

picious commencement and present prospects of a work destined, at no distant period, to form a main connecting line between the West and the Atlantic, and add largely to the trade and prosperity of the State and city.

All of which is respectfully submitted.

By order of the Board.

S. V. MERRICK, President.

Office Pennsylvania Rail-road Company, }
Philad., 30th October, 1847. }

THE TREASURER REPORTS,

Amount received from Stockholders in payment of

First Instalment,	-	-	-	\$303.725
Second	"	-	-	298.940
Third	"	-	-	296.955
Fourth	"	-	in advance,	50.815
Fifth	"	-	"	640
Sixth	"	-	"	200
Seventh	"	-	"	100
Eighth	"	-	"	50
Ninth	"	-	"	50
Stock in full,	-	-	"	66.250

1.017.725

And expended in

Organization and Expenses,	-	10.518 99	
Engineering,	-	23.116 11	
Graduation,	-	10.166 02	
Real Estate,	-	1.575	
Right of Way, Fencing and Damages,	-	5.413 15	
In hands of Agents,	-	13.631 87	64.421 14
Balance in hands of the Company,			\$953.303 86

GEORGE V. BACON,

TREASURER.

Philadelphia, October 30, 1847.

The following communication from the Chief Engineer is appended :

ENGINEER DEPARTMENT PENN'A RAIL-ROAD, }
Dec. 1, 1847. }

SIR :—In consequence of the lateness of the season at which the surveys for the Penn'a Rail-road were commenced, it will be out of my power to furnish, at this time, a satisfactory description and estimate of any considerable portion of the route. I should, therefore, prefer deferring a detailed report of our operations for a few months, when the estimates, founded upon the surveys now about closing, will be made out.

I can, however, state, for the information of the Board, that we have—within the short space of four months from the time the parties took the field above Lewistown—determined the route of the whole of the Eastern Division of the Road. The surveys made have been very extensive, and are entirely satisfactory and conclusive in their results ; leaving no doubt upon my mind in relation to the superiority of the route selected. Indeed, a better line than we have obtained could scarcely have been expected. The whole distance from Harrisburg to the foot of the Alleghenies is 134 miles, and upon this distance, the maximum ascending gradient to Lewistown does not exceed 16 feet per mile, or descending 8 feet ; and above that place, the greatest ascent per mile is 21 feet, and descent $10\frac{1}{2}$ feet.

The foot of the Alleghenies is reached at Robinson's Summit, on the ridge dividing the Frankstown Branch and Little Juniata River, west of the Brush Mountain. From this point the great barrier separating the East from the West can be ascended by a continuous gradient of 80 feet per mile for $12\frac{1}{4}$ miles, without encountering any very extraordinary difficulties, overcoming an elevation of 980 feet, and passing to the west side of the mountain at Sugar Run Gap by a tunnel 760 yards long and 160 feet below its apex. This gradient is less than the maximum ascent used on the Boston and Albany Rail-road, and also on the Baltimore and Ohio Rail-road at the ridge between the Patapsco and Potomac. It may be reduced to 75 or 76 feet per mile by a longer tunnel at the mountain summit, and a slight prolongation of the gradient eastwardly.

From Robinson's Summit, a connection can be effected with the Allegheny Portage Rail-road by a branch of 6 or 7 miles in length, over favorable ground. This connection should be made simultaneously with the main line, if the Commonwealth should appropriate the means necessary to place the Portage Road in a condition to do the additional business that we will throw upon it.

The maximum gradient best adapted to the Western Division has not yet been determined, but it is believed that it cannot be advantageously reduced below 50 feet per mile. One line has been located through from Pittsburgh to Blairsville, via Turtle Creek, the profile of which, by the use of a higher gradient and a more minute examination of the country, has been greatly softened in its asperities over that made from Mr. Schlater's surveys. Three of the tunnels recommended by him have been dispensed with. Another route, by the valley of Brush Creek, passing through Greensboro', and intersecting the Conemaugh at the point of Chestnut Ridge, is being located, which, though longer, does not present quite so rough a surface as that by Blairsville.

The distance from Harrisburg to the summit of the Allegheny is 146 miles, thence to Pittsburgh it will be about 104 miles by the Conemaugh and Blairsville, and 96 miles by the Blacklick and Blairsville route, making the total probable distance on the shortest route from Harrisburg to Pittsburgh 242 miles.

The whole line will be admirably arranged for cheap transportation, not only on account of the adaptation of the gradients to the direction of the heaviest trade, but also from the steeper gradients occurring where fuel will be unusually cheap; bituminous coal abounding upon their whole extent, and may be obtained at from 60 to 90 cents per ton. The mountain gradient divides the Eastern and Western Divisions of the road and the low from the higher system of gradients—up this steeper inclination the trains, when heavily laden, will be assisted by additional locomotive power.

The contracts entered into for 20 miles of the graduation on the Eastern Division in July have all been commenced, and it is believed that all, except that including the Susquehanna Bridge, will be finished by the time allotted. The latter is now progressing with much vigor. Upon the Western end but few of the contractors have commenced their work; ample time having been

allotted them to complete their contracts, it has not been deemed necessary to push them.

Very respectfully,

Your ob't serv't,

J. EDGAR THOMSON,

Chief Engineer.

To S. V. MERRICK, Esq., }
 President. }